

## CLAIMS:

1. A transfective liquid crystal display device (11, 21), comprising a plurality of pixels, each comprising a liquid crystal layer (12, 22), being sandwiched between front and back electrode means (13, 23; 14, 24) as well as front and back polariser means (17a, 27a; 17b, 27b), characterized in that an optical  $\lambda/4$  layer (16a, 26a) at least partly is arranged  
5 between said front polariser (17a, 27a) and said liquid crystal layer (12, 22), and said liquid crystal layer (12, 22) is a liquid crystal layer having a twist angle essentially within a range  $\pm 80$ - $100^\circ$ , such as  $90^\circ$ .
2. A liquid crystal display device as in claim 1, wherein said optical  $\lambda/4$  layer  
10 (16a, 26a) is a wide band  $\lambda/4$  layer.
3. A liquid crystal display device as in claim 1 or 2, wherein each of said pixels are subdivided into a transmissive and a reflective sub-pixel (11a, 11b), respectively, whereby said optical  $\lambda/4$  layer (16a) essentially only covers said reflective sub-pixels (11b),  
15 thereby constituting a patterned  $\lambda/4$  foil.
4. A liquid crystal display device as in claim 1 or 2, wherein said back electrode means (26b) is a semitransparent reflecting electrode essentially covering the entire pixel area.  
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5. A liquid crystal display device as in claim 3, wherein a cell gap of a transmissive sub-pixel (11a) is essentially larger than a corresponding cell gap for a reflective sub-pixel (11b).
- 25 6. A method of generating a patterned  $\lambda/4$  foil comprising the following steps:  
depositing a reactive liquid crystal layer (16a) on a substrate,  
applying a mask, covering parts of the display corresponding to transmissive parts of the display, while  
revealing parts corresponding to reflective parts,

photo-polymerizing said reactive liquid crystal layer, through said mask  
removing non-reacted liquid crystal material.

7. A method of generating a patterned  $\lambda/4$  foil comprising the following steps:  
5 depositing a reactive liquid crystal layer (16a) on a substrate,  
applying a mask, covering parts of the display corresponding to transmissive  
parts of the display, while revealing parts corresponding to reflective parts,  
performing a first photo-polymerization exposure of said reactive liquid  
crystal layer, while keeping the reactive liquid crystal layer at a first temperature,  
10 performing a second photo-polymerization exposure of the reactive liquid  
crystal layer, while keeping the reactive liquid crystal layer at a second temperature,  
whereby one of said photo-polymerization exposures are made through a  
mask, being applied on said reactive liquid crystal layer.
- 15 8. A method in accordance with claim 7, whereby said first and second  
temperatures is so chosen that the reactive liquid crystal layer is in a nematic liquid crystal  
phase at said first temperature, and at a temperature above a clearing point of said liquid  
crystal material.
- 20 9. A method of generating a patterned  $\lambda/4$  foil comprising the following steps:  
depositing a reactive liquid crystal layer (16a) on a substrate,  
providing a patterned orientation layer, corresponding to the desired patterned  
 $\lambda/4$  foil.
- 25 10. A method in accordance with claim 9, wherein said patterned orientation layer  
is generated by means of photo-alignment.